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SOURCE:

1. The Werk HF in Berlin-Oberschoeneweide received orders to develop moving field tubes including: a noise reducing input stage tube for pure voltage amplification and small output; a tube for amplification stages and about 10,000-time voltage amplification which was completedly decoupled to avoid self excitation; a tube for output amplification scheduled to have a power delivery of about 1.5 W at as small an input power as possible. In late 1952, the laboratory development work for the tube for amplification stages which was scheduled to be used also as frequency converter was essentially completed. The development of the noise reducing input stage tube was scheduled to be completed in the second quarter of 1953. The development of a tube for output amplification which was said to cost 100,000 eastmarks was scheduled for 1954. While the tube for input and amplification stages were equipped with a relatively slight electron optical focussing, stronger electron optics were scheduled for the output amplification tube. Source concluded from respective trials that the output amplification tube was scheduled to get an L-cathode.

2. Plants interested in the moving field tubes included the Sachsenwerk Radeberg which wanted the tubes for decimetric sets and Funkwerk Koepenick.

3. A gain of 36 db quoted for the tube for amplification stages was measured in a laboratory sample. Instruments and methods were developed for measuring the noise factor in connection with the development of a noise reducing tube for input stages. Measures scheduled to diminish the noise included a completely concentric conduction of the electron beam and the coating of the inner glass side with a carbon layer in the form of a burned-in layer of hydrocollag(sic) with longitudinal slits.

4. All five laboratory samples produced up to mid-May remained in Werk HF and were used for trial assemblies of transmitter, receiver, and oscillator stages for decimetric waves. They were scheduled to replace powder-metallurgical tubes for some purposes to obtain a wider band width.

5. In late April 1953, source learned from an engineer who participated in the development of the moving field tubes that the moving field tubes developed in the laboratory had an amplification of 4×10^3; a wave length of 10 cm; and an output of 500 to 700 m.W., and that only trial samples had so far been produced. The tube was said to be no imitation of a known type and to be newly developed on the basis of international technical literature. Trials going on were scheduled to reduce the wave length. Source observed at the laboratory that the Lecher system type indicator

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of a magnetron transmitter used for these trials indicated 3.2 cm. The tube was scheduled to be ready for production in the course of 1954. Other tubes scheduled to be developed included 10 W. tubes and a noise reducing tube for a less output. Designs with technical data for these tubes were available.